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(54) **ADJUSTABLE GOLF CLUB SHAFT AND HOSEL ASSEMBLY**

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This patent is subject to a terminal disclaimer.

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CPC ..... *A63B 53/02* (2013.01); *A63B 53/00* (2013.01); *A63B 59/0074* (2013.01); *A63B 2053/023* (2013.01)

(58) **Field of Classification Search**  
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,027,452 A *	1/1936	Rusing .....	A63B 53/06 473/246
7,963,855 B2 *	6/2011	Sander .....	A63B 53/02 473/288
7,997,997 B2 *	8/2011	Bennett .....	A63B 53/02 473/288
8,616,996 B2 *	12/2013	Murphy .....	A63B 53/02 473/246

(Continued)

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(57) **ABSTRACT**

An adjustable shaft and hosel assembly allows for dependent and independent adjustment of a golf club's face angle, loft angle, and lie angle. The adjustable shaft and hosel assembly comprises a shaft sleeve, a hosel portion, and at least two tubular adjustment pieces having non-parallel upper and lower surfaces, wherein the tubular adjustment pieces include loft and lie angle indicators that can be added together to determine overall club head loft and lie angles.

**13 Claims, 19 Drawing Sheets**

